DOCUMENT RESUME

ED 138 857 CG 011 320

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TITLE Auto- Versus Heterohypnosis: Behavioral and Subjective Differences.
PUB DATE 6 May 76
NOTE 11p.; Paper presented at the Annual Conference of the Midwestern Psychological Association (Chicago, Illinois, May 6-8, 1976)

EDRS PRICE MF-$0.83 HC-$1.67 Plus Postage.
DESCRIPTORS *Behavioral Science Research; *Experimental Psychology; *Hypnosis; *Psychological Patterns; Research Projects; *Response Mode

ABSTRACT

This paper examines and compares two hypnotic modes in terms of behavioral and experimental responses. The two modes are: (1) autohypnosis and (2) heterohypnosis. The two types of hypnosis experiences were administered to each of two randomly assigned groups. Subjects were 25 male and 23 female volunteer introductory psychology students. The findings showed that the general features of hypnotic phenomenology and behavior were similar under both procedures. (YRJ)

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ED138857

Auto- versus Heterohypnosis:

Behavioral and Subjective Differences

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Paper presented at the Midwestern Psychological Association, Chicago, May 6, 1976.

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Auto- versus Heterohypnosis:

Behavioral and Subjective Differences

Self-hypnosis has been largely ignored as a 20th century research topic until very recent years. It has been traditionally assumed that the phenomena of self- and of heterohypnosis (conventional hypnosis) are essentially identical. However, to date there is a dearth of scientific evidence that they are either similar or different states of consciousness, motivation, etc.

As hypnosis and subjective phenomena have become more acceptable research topics, this neglect of research in self-hypnosis has begun to reverse itself. Several recent studies have compared auto- and heterohypnotic phenomena, (Fromm, 1973; Shor & Easton, 1973; Ruch, 1975).
Ruch (1975) compared a conventional hypnotic with several self-hypnotic procedures. Shor (1970) developed the first scale suitable for self-hypnotic research, the Inventory of Self-Hypnosis (ISH), patterned after the Harvard Group Scale of Hypnotic Susceptibility (HGS; Shor and Orne, 1962). Shor and Easton's results (1973) show essential equivalence between total scores on the ISH and the HGS.

Both the Ruch and the Shor and Easton studies conclude that, in terms of overall hypnotizability, subjects can hypnotize themselves about as well as they can be hypnotized. Shor and Easton found only a moderate correlation between the total scores of the ISH and HGS, however (.39). This finding suggests that individuals are only moderately similar in their hypnotic susceptibility to the different hypnotic modes, despite similar mean scores. Verification of and an explanation for this finding is needed.

Although the behavior of hypnotized and nonhypnotized subjects cannot always be distinguished (Orne, 1972), subjects consistently report that

hypnosis is more than anything else a remarkable subjective experience. Several investigators have studied hypnosis as an experience through their factor analytic techniques (Field, 1965; Aas, 1967). These techniques can be applied to discover whether heterohypnosis differs from self-hypnosis as a subjective experience.

Procedure

The present study then was designed to compare the two hypnotic modes in terms of behavioral and experiential responses. The two types of hypnosis experiences were administered to each of two randomly-assigned groups of subjects, which received them in opposite orders of presentation. The type-of-hypnosis dimension involved repeated measures on the same subjects, 25 male and 23 female volunteer introductory psychology students.

On Day 1, one group received the heterohypnosis experience in the form of the induction of the 12 behavioral suggestions of the HGS. The other group received the self-hypnosis experience in the form of the ISH-Group Version, a booklet containing instructions in how to hypnotize one's self and proceed through the same 12 items via autosuggestions. Wording follows that of the HGS as much as possible. On Day 2, the groups each received the other hypnotic experience.

For both scales, the subject estimates whether his responses would have met certain observer-rated quantitative criteria. These judgments have been found for the HGS to correlate very highly (.82) with a simultaneous scoring by raters. Thus, while they in fact use a self-report method, the scales may be considered effectively "behavioral" scales. They yield total scores from 0 to 12, reflecting increasing levels of hypnotic or self-hypnotic susceptibility.

After each hypnotic session, the subjects responded to the Hypnotic Experience Inventory (HEI). Adapted from Field and Palmer (1969), the HEI contains 42 true-false statements about the hypnotic experience which correlate highly with total hypnotic susceptibility scores. Examples: It was amazing; Time stood still; Everything happened automatically.

Two analyses of variance were performed for the major tests of overall differences between auto- and heterohypnosis, first using the behavioral total scores (HGS and ISH) and then the phenomenological total scores (HEI totals). The separate experience inventories administered after self- and heterohypnosis (called the SHEI and HHEI) were factor analyzed separately to see which subjective experiences were unique to each hypnotic condition. The basic factor analytic methodology developed by Field and Palmer (1969) was followed. A joint factor analysis also grouped the HEI responses following both experiences into one analysis to see which factors were common to both. Factor scores were derived for each subject on each factor. Analyses of variance were run to distinguish between self- and heterohypnosis on each of these factors.

Results and Discussion

Behavioral total scores were not significantly different for the two hypnotic modes, equaling 7.2 for the HGS and 7.8 for the ISH (Table 1). This finding strengthens the Shor and Easton (1973) and Ruch (1975) conclusion that neither type of induction is superior to the other in producing general hypnotic behavior in inexperienced subjects. Order of presentation also did not affect the total score, neither by itself nor in interaction with type of hypnosis. This finding fails to replicate Ruch's (1975) second conclusion that the initial form of hypnosis affects later responsiveness to other modes, i.e., that initial heterohypnosis inhibits later self-hypnosis, while initial auto-hypnosis facilitates later heterohynosis.

The total score correlations between the scales were only .47 for this study and .39 for Shor and Easton, however. Shor and Easton conclude the ISH measures about as "much" as the HGS but largely of some different attribute. This conclusion cannot be drawn. Given the internal consistency reliabilities of the HGS and ISH (.74 and .55), the highest correlation possible to obtain would have been .64, using the McNemar, 1969, correction for attenuation formula, which is only moderately above the obtained .47. Perhaps the best conclusion is that the data are still equivocal about the degree of correlation between the total behavioral scores for the two hypnotic modes, as measured by these scales, even though mean scores are comparable.

Individual tasks did vary greatly in the strength of positive correlation between the HGS and ISH forms (Table 2). Items suggesting positive actions (asterisked) showed greater variability between hypnotic states than inhibitory suggestions (non-asterisked). This variability may account for the moderate total-score correlation.

The phenomenological measures showed considerable correspondence with their respective behavioral measure of the same hypnotic mode (Table 3), lending support to the HEI technique. Note the correlation between HGS and HHEI for heterohypnosis of .55 and that between the ISH and SHEI for autohypnosis of .56. Correlations across modes are much lower.

The total subjective impact of auto- vs. heterohypnosis was not significantly different, equaling 18.7 for the SHEI and 18.6 for the HHEI. A total-score correlation of .63 (Table 3) shows a substantial association between the overall experiences, phenomenologically.

The factor analyses showed the main components of each hypnotic experience to be similar, as compared in Table 5. The heterohypnosis factors and the number of highest-loading items are on the left. The most closely matching autohypnosis factors and the number of items overlapping both factors are on the right.

Common features are most noticeable in the similar factor labels. Factors of "Unawareness" of surroudings, "Loss of Time Orientation," "Strange Experience," as well as some perceptions of a shifting level of "trance," altered physical responsiveness, and denial of being unaffected. are common features. Differences between the experiences are noticeable in factors unique to one state or the other or in the differences in the cluster of items which make up the factors with similar labels. The "Unawareness" factor for heterohypnosis was a pervasive obliviousness to surroundings while for self-hypnosis it was more a sense of the "unreality" of the experience. The analyses of variance of the joint factors also showed a significantly greater "Unawareness" of surroundings in hetero- than self-hypnosis (Table 6). The most general self-hypnosis factor was a diversely altered state of consciousness and physical responsiveness that did not correspond neatly to any heterohypnotic factor. The "Loss of Time Orientation" was significantly more pronounced in self- than in heterohypnosis (Table 6). While there was some denial of ability to control responses in autohypnosis, the heterohypnosis factor of "Loss of Bodily Control" was not found in self-hypnosis.

Conclusion

In summary, the general features of hypnotic phenomenology and behavior were similar under both procedures. Behaviorally, inexperienced people were as able to hypnotize themselves as to be hypnotized by another. Responsiveness to individual tasks varies between states, however. The need for heterohypnotic training prior to self-hypnosis appears questionable. Subjectively, hetero-hypnosis evoked more feelings of unawareness, passivity, and loss of control. Self-hypnosis elicited more feelings of time distortion, active direction, and trance variability. Overall subjective impact was the same. Since self-

hypnotized subjects feel somewhat more aware, active, and in control, auto-hypnosis used outside of therapy sessions may be safer or more acceptable than heterohypnosis.

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Table 4: Comparison of SHEI and HHEI Means

		HHEI	ISH
SHEI = 18.6 (n.s.) HHEI = 18.7	Order 1	21.1	18.2
	Order 2	16.5	19.0

Table 5: Comparison of Heterohypnosis Factors with Overlapping Self-Hypnosis Factors of the Hypnotic Experience Inventory

Heterohypnosis factor	# of items	Closely corresponding self-hypnosis factors	# of matches
#1-Unawareness, disorientation	13	#2-Unawareness, unreality	5 of 13
		#1-Altered phhsical & mental state	3 of 13
#2-Loss of time orientation	7	#4-Loss of time orientation	3 of 7
		#1-Altered physical & mental state	1 of 7
#3-Strange, trance-like, experience	7	#3-Strange experience	4 of 7
#4-Loss of bodily control	5	#2-Unawareness, unreality	3 of 5
		#1-Altered physical & mental state	2 of 5
#5-Denial of noninvolvement	5	#5-Denial of own control & awareness	2 of 5
#6-Light trance	5	#1-Altered physical & mental state	2 of 5
		#1-Variable trance	1 of 5

Table 6: Univariate Tests of Joint-Factor Scores

	Factor Label	Mean HH Factor Score	Mean SH Factor Score	F (1, 44)	p
1.	"Unawareness"	0.136	-0.150	4.57	<.05
2.	"Loss of Time Orientation"	-0.168	0.164	5.06	<.05

Table 1: Comparison of HGS and ISH Means

			HGS	ISH
HGS = 7.2	ISH = 7.8	Order 1	7.8	7.8
		Order 2	6.7	7.9

Table 2: Relationship between responses to corresponding items of the HGS and ISH

	Item	Correlation (phi coefficients)
*	1. Head Falling	-.09
*	2. Eye Closure	-.13
*	3. Hand Lowering	-.08
	4. Arm Immobilization	.27**
	5. Finger Lock	.27**
	6. Arm Ridigity	.46**
*	7. Moving Hands Together	-.01
	8. Communication Inhibition	.38***
*	9. Fly Hallucination	.24
	10. Eye Catelepsy	.26**
*	11. Posthypnotic Suggestion	.21
	12. Amnesia	.33**

**$p < .05$

***$p < .01$

Table 3: Intercorrelations of the HGS, ISH, HHEI, & SHEI

Test	ISH	HEI	SHEI
HGS	.47**	.55**	.26*
ISH		.40*	.56**
HHEI			.63**

*$p < .05$ **$p < .01$